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SOURCE Promyshlennaya Energetika, No 12, 1950.

SOVIET TESTING AND MEASURING INSTRUMENTS

Compiled by Engr R. Ye. Gel'man

The following list of testing and measuring instruments was reprinted from sheet 60 of the Spravochnik Zavodskogo Energetika (Plant Power Engineer's Handbook).

M-1 (M-51) (M-52) (M-53) (M-54) Voltmeters, Moving-Coil, Small. Fixed, for dc circuits, accuracy class 2.5 /percent/. Measuring range: 3, 7.5, 15, 30, 50, 3-0-3, 7.5-0-7.5, and 15-0-15 v without separate auxiliary resistors; 150, 150-0-150, 250, 300, 460, 600, 1,000, 1,500, and 3,000 v, with separate auxiliary resistors (see below); double scale -- 3/300, 7.5/300, 15/300 and 30/300 v. Characteristic features of M-51, M-52, M-53, M-54, over-all dimensions, and weight same as type M-1 ammeters. Voltmeters with measuring limits above 600 v are mounted on insulators.

M-2 (M-41) (M-42) (M-43) (M-44) Voltmeters, Moving Coil. Fixed for dc circuits, accuracy class 2.5. Measuring range: 3, 7.5, 15, 30, 50, 150, 250, 300, 3-0-3, 7.5-0-7.5, 15-0-15, 150-0-150 v, without separate auxiliary resistors; 460, 600, 1,000, 1,500, and 3,000 v with separate auxiliary resistors (see below); double scale -- 3/30, 7.5/300, 15/300, and 30/300 v without separate auxiliary resistors; triple scale -- 15/150/1,500 v with separate auxiliary resistors (see below). Characteristic features of M-41, M-42, M-43, M-44, over-all dimensions, and weight same as type M-2 ammeters. Voltmeters with measuring limits above 600 v are mounted on insulators.

M-63 Voltmeters, Moving Coil, Miniature. Fixed, for dc circuits, double scale 3/300 v. Semiflush, circular plastic body 40 mm in diameter, face (ornamental rings with holes for attaching instrument to panel) 43 x 43 mm. Weight 85 g. Mounted on an iron panel. Have separate auxiliary resistors for 300 v.

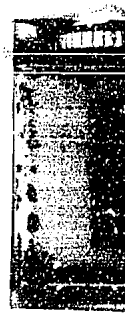
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M-55/1 Voltmeters, Moving Coil, Pocket Size. Portable, for dc circuits, accuracy class 2.5. Measuring ranges: 3, 7.5, 15, 30, 75, 150, 3-0-3, 7.5-0-7.5, and 15-0-15 v. Dimensions: 60 x 92 x 37.5 mm. Weight 0.21 g. Provided with tapered terminal contacts for connecting to storage battery bus bar (underneath the instrument).

M-55/3 Voltmeters, Moving Coil, Pocket Size. Technical data, over-all dimensions, and weight same as type M-55/1 voltmeters (see above), but double scale: 15/150 and 15/150-0-15/150 v.

M-55/5 Voltmeters, Moving Coil, Pocket Size. Portable, for dc circuits, accuracy class 2.5. Double scale -- 3/300 v. Dimensions 60 x 78 x 37.8 mm. Weight 0.21 g.

M-1 (M-51) (M-52) (M-53) (M-54) Voltammeters, Moving Coil, Small. Fixed, for dc circuits, accuracy class 2.5. Measuring range: 15 v/500 ma, 15 v/5 a, 50 v/50 a, and 30 v/50 a, with ar external shunt for 50 a (see below); 1 a/3,000 v, with separate auxiliary resistor (see below). Characteristic features of M-51, M-52, M-53, M-54, over-all dimensions, and weight same as type M-1 ammeter. Instruments for 3,000 v mounted on insulators.

M-55/3 Volt-Milliammeters, Moving Coil, Pocket Size. Technical data, over-all dimensions, and weight same as type M-55/1 voltmeter (see above), but with measuring range 30-0-30 ma/3-0-3 v and 300-0-300 ma/3-0-3 v.

M-55/4 Volt-Milliammeters, Moving Coil, Pocket Size. Technical data, over-all dimensions, and weight same as M-55/1 voltmeter (see above), but with measuring range 30-0-30 ma/3-0-3 v/30-0-30 v.

M-493 Volt-Ohm-Ammeters. Portable, for dc circuits, accuracy class: ammeter and voltmeter, 2.5; basic error of ohmmeter, 15%. Measuring range: for current, 0.003 to 3 a; for voltage, 3 to 600 v; for resistance, 30 to 300 kilohms. Over-all dimensions 220 x 132 x 100 mm. Weight 2 kg.

M-491 Moving Coil, Volt-Ohmmeters. Portable, for dc circuits, accuracy class of voltmeter 2.5; basic error of ohmmeter 15%. Measuring range: for voltage, 3, 30, 300, 600 v; for resistance, 0.02-30, 0.2-300, and 2-3,000 kilohms. Over-all dimensions 220 x 132 x 100 mm. Weight, without batteries for ohmmeter, about 2 kg.

M-122/1 Galvanometers, Moving Coil, Null Indicating for DC Circuits. Scale divisions, 0.3-0.5 μa. Scale length, 20-0-20 divisions. Over-all dimensions 91 x 69 x 168 mm. Weight about 2 kg.

M-122/2 Galvanometers, Needle, Null Indicating. Technical data, over-all dimensions, and weight same as type M-122/1 galvanometers (see above) but with scale division of 0.1-0.2 μ a.

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M-57 Ammeters, Moving Coil, Portable (Pocket Size). For approximate technical measurements of dc electrical resistance in the range 10-5,000 ohms. Over-all dimensions 71 x 38 x 170 mm. Weight 0.34 kg.

M-67 Bridges, Resistance, Small. Portable, for technical measurements of dc resistance. Measuring range 0.05 to 50,000 ohms. Over-all dimensions 200 x 110 x 65 mm. Weight about 1.1 kg.

75-RP Shunts, External. For moving-coil ammeters with measuring range from 25 to 50 a. Weight 0.12 kg.

100-R Shunts, External. For moving-coil ammeters, maximum range 100 a. Weight 0.23 kg.

R-105 Resistors, Auxiliary. For moving-coil voltmeters up to 450 v. Weight 0.02 kg.

R-102 Resistors, Auxiliary. For moving-coil voltmeters up to 600 v. Weight 0.18 kg.

R-103 Resistors, Auxiliary. For moving-coil resistors from 1,000 to 3,000 v. Weight 0.6 kg.

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